WHAT IS CLAIMED IS:

1. A decoder device for decoding packet signals composed of control codes and data codes, the control codes including information for decoding the data codes, the decoder device comprising:

means for decoding the control codes and for decoding the data codes based on a plurality of predetermined decoding formulae and generating a plurality of data signals decoded based on the respective decoding formulae; and

means for selecting a decoded data signal, from among the plurality of decoded data signals, that is decoded based on a decoding formula corresponding to the decoding information obtained from the control codes.

2. A decoder device for decoding packet signals composed of control codes and data codes, the control codes including information for decoding the data codes, the decoder device comprising:

means for decoding the control codes and outputting a decoded control code and for decoding the data codes based on a plurality of predetermined decoding formulae and outputting a plurality of data signals decoded based on the respective decoding formulae; and

means for obtaining the decoding information from the decoded control code and for selecting a decoded data signal to output the same, from among the plurality of the

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decoded data signals, that is decoded based on a decoding formula corresponding to the obtained decoding information.

3. The decoder device as in claim 1, wherein:

the decoding information is a specified combination of a modulation formula and a coding rate; and

the plurality of predetermined decoding formulae is a group of combinations, each combination consisting of a modulation formula selected from a plurality of modulation formulae and a coding rate selected from a plurality of coding rates, one of the combinations corresponding to the specified combination.

4. A decoder device for decoding packet signals composed of control codes and data codes, the control codes including a specified combination of a modulation formula and a coding rate for decoding the data codes, the decoder device comprising:

means for dividing the packet signals into the control codes and the data codes;

means for decoding the control codes and for decoding the data codes based on a plurality of combinations, each combination consists of a modulation formula and a coding rate, thereby generating a plurality of data signals decoded based on the respective combinations; and

means for selecting a decoded data signal, from among the plurality of decoded data signals, that is decoded based on a combination which coincides with the specified combination included in the control codes, thereby outputting the selected data signal therefrom.

5. The decoder device as in claim 4, wherein:

the decoding means includes: a plurality of demodulators, the number of which corresponds to the number of the modulation formulae; a plurality of de-interleavers, each connected to each demodulator; and a plurality of decoders for outputting decoded data signal outputs, each decoder outputting a plurality of decoded data signal outputs, the number of which corresponds to the number of coding rates.

6. The decoder device as in claim 4, wherein:

the decoding means includes: first demodulating means for demodulating the control codes, and second demodulating means for demodulating the data codes to output a plurality of demodulated outputs, the number of which corresponds to the number of modulation formulae; and

the dividing means feeds the control codes to the first demodulating means and the data codes to the second demodulating means.

7. The decoder device as in claim 6, wherein:

the decoding means further includes first de-interleaver means connected to the first demodulating means, second de-interleaver means connected to the second demodulating means for outputting the same number of de-interleaved outputs as the number of the demodulated outputs from the second de-modulating means, and decoder means connected to the second de-interleaver means for outputting such a number of decoded outputs, for each de-interleaved output from the second de-interleaver means, that corresponds to the number of the coding rates; and

a part of the decoder means is connected also to the first de-interleaver means for decoding the output form the first de-interleaver means.

8. A method of decoding a packet signal composed of a control code and a data code, the control code including a formula for decoding the data code, the method comprising:

dividing the packet signal into the control code and the data code;

decoding the control code into a decoded control code;

analyzing the decoded control code to obtain the formula for decoding the data code contained in the control code;

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decoding the data code under a plurality of decoding formulae to obtain a plurality of decoded data signals while analyzing the decoded control code; and

selecting a decoded data signal, from among the plurality of decoded data signals, that is decoded under a decoding formula which coincides with the decoding formula obtained from the control code.